

The concave distal end portion 34 of tip means 22 has a planar zone 37 which is defined by the peripheral blunt edge 36 of concave distal end portion 34 and which extends over a concavity which is defined by concave inner surface 32 of the concave distal end portion 34 (FIGS. 2 and 5). The tip means 21 and 22 are so provided that, upon the closing of jaw members 19 and 20 and the associated tip means 21 and 22, the blunt distal end portion of tip means 21 partially penetrates the planar zone 37. Upon penetration of planar zone 37 by spherically blunt distal end portion 31 of tip means 21, the surgical towel or drape material 40 and 40' is trapped within the space defined by planar zone 37 and concave inner surface 32 of concave distal end portion 34 (FIG. 5). It is to be noted that, in addition to the clamping effect of jaw tip means 21 and 22, surgical towel or drape material 40 and 40' is crimped across peripheral blunt edge 36 of concave distal end portion 34. The aforementioned crimping effectively increases the resistance to any displacement of surgical towel or drape material 40 and 40' within surgical towel and drape clamp 10 over the resistance to such movement which would be provided by a clamping action between jaw tip means 21 and 22 alone.

In the exemplary embodiment of the present invention, the blunt distal end portion 31 of tip means 21 is shown to be externally radiused and, in fact, is generally spherical in configuration. Further, the concave distal end portion 34 of tip means 22 is internally radiused and, in fact, is spherically concave. As is shown in FIGS. 2 and 5, upon trapping surgical towel or drape material 40 and 40' between generally spherical distal end portion 31 and generally spherically concave distal end portion 34 of tip means 21 and 22 respectively, no sharp edges or corners are presented to the surgical towel or drape material 40 and 40' thereby eliminating any potential for either puncturing, abrading or cutting the material by the action of jaw tip means 21 and 22.

Further, as was noted prior, the radius of curvature of surface 33 of generally spherical portion 31, the blunt distal end portion of tip means 21, is relatively less than the radius of curvature of concave inner surface 32 of the concave distal end portion 34 of tip means 22. This disparity between the interacting portions of tip means 21 and 22 allows the secure clamping or trapping of

any number of thicknesses of surgical towel or drape material, as it allows generally spherical portion 31 of tip means 21 to enter the generally spherically concave portion 32 of concave distal end portion 34 to any extent necessary to trap the material between the tip means 21 and 22. This allows a secure trapping of the material between generally spherical portion 31 and the bottom of concave inner surface 32 in cases where the thickness of material is minimal. This will allow the aforementioned crimping action to take place along with the attendant benefits of such crimping.

I claim:

1. In a surgical towel and drape clamp having opposing jaw members connected to and opened and closed by the action of pivotally interconnected shank members having finger loop members and locking ratchet members and said jaw members further having tip means for holding and clamping surgical drapes, surgical towels and the like, the improvement in said tip means comprising the provision of:

a blunt hemispheric distal end portion on one of said tip means; and

a concave hemispheric distal end portion having a peripheral blunt edge on the other of said tip means,

whereby, upon placing a surgical drape between said tip means and manipulating said finger loops to close said jaw members and locking ratchets, said drape is trapped between said blunt hemispheric distal end portion and said concave hemispheric distal end portion.

2. The improvement in tip means of claim 1, wherein: said blunt hemispheric distal end portion is provided with an externally radiused ball-like end portion; and

said concave hemispheric distal end portion is provided with an internally radiused socket end portion having a relatively larger radius of curvature than that of said ball-like end portion whereby upon trapping a plurality of layers of said surgical drape between said distal end portions of said jaw tip means, a tight clamping is attained while puncturing or cutting of said surgical drape by said jaw tip means is prevented.

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